REMARKS

Claims 1-18, 24-27, and 32-34 are now pending in the application. The Examiner is respectfully requested to reconsider and withdraw the rejections in view of the remarks contained herein.

If the Examiner relies on a new ground of rejection or a new reference in rejecting the Claims in the next Office Action, a Final Office Action would not be appropriate since there are no amendments that change the scope of the claims. Under present practice, second or subsequent actions on the merits shall be final, except where the Examiner introduces a new ground of rejection that is not necessitated by Applicants' amendment of the claims. **See MPEP § 706.07(a).**

REJECTION UNDER 35 U.S.C. § 103

Claims 1-11, 24-27 and 32-34 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Reitan (U.S. Pat. No. 5,600,574) in view of Leffel (U.S. Pub. No. 2005/0057303). Claims 11 is rejected under 35 U.S.C. § 103(a) as being unpatentable over Reitan (U.S. Pat. No. 5,600,574) in view of Takane (U.S. Pub. No. 2002/0030751). These rejections are respectfully traversed.

With respect to claim 1, Reitan, either alone or in combination with either Leffel or Takane, fails to show, teach, or suggest at least sample inputs of a transfer function being distributed so that more sample inputs are associated with a first region of the transfer function than a second region of the transfer function. As best understood by Applicants, the alleged combination is silent as to relative distribution of the sample inputs with respect to regions of the transfer function.

For example, as shown in an exemplary embodiment in FIG. 2 of the present application, a transfer function module (TFM) 108 receives image data as transfer function input data. One or more lookup tables (LUTs) 124 store and index the transfer function input data and transfer function output data. More specifically, the LUTs 124 do not store all possible inputs and outputs of the transfer function and instead only store samples in each region of the transfer function. For example, the LUTs 124 may allocate more of the samples to a first region of the transfer function and allocate fewer samples to a second region of the transfer function. As shown in FIG. 4, more samples are allocated to curved regions Q1 and Q2 than to relatively linear regions Q3 and Q4. In other words, different regions of the transfer function may be allocated different numbers of samples, as required in claim 1.

In contrast, Reitan appears to be absent of any teaching or suggestion of this limitation. The Examiner relies on Column 21, Lines 55-66 and Column 22, Lines 5-10 of Reitan to disclose this limitation. These cited portions state:

> Look Up Tables are utilized within the electronic imaging system of the present invention to perform conversion of an incoming pixel data set to an outgoing pixel data set so as to achieve a desired transfer function for a particular system component. In so doing, multiple objectives are achieved including calibration, matching and adaptation to a variety of pixel value representations. For example, the CRT display LUT (Look Up Table) is used to match the CRT contrast and brightness to the film density of the original film. The printer CLUT (Contrast Look Up Table) is used to match the printed film density to that of the original film. The digitizer LUT is typically used to fine tone the instrument's calibration and remove any non-linearity in the (usual) density-to-density transfer function.
>
> FIG. 7 shows the relevant portions of the automated image quality control system for the electronic imaging system of the preferred embodiment of the present invention system where LUT's are used to transform pixel quantities. There are three LUT's in the basic system: LUT A 601, LUT B 608 and LUT C 606. The nomenclature used to describe the LUT input and output values is shown in Table 2.

The portions cited above appear to be directed to using lookup tables to convert an incoming pixel data set to an outgoing pixel data set but, however, fail to disclose anything about how samples are distributed amongst regions of a transfer function as Applicants' claim recites. Further, the Examiner suggests that this portion discloses that "the desired output can be positioning the samples on a desired region." (See Page 3, Lines 1-3 of the Office Action). Applicants respectfully submit that neither the above portion nor any other portion of Reitan appears to support this allegation.

The Examiner merely relies on Leffel and Takane to disclose an address module and a sensor, respectively. Leffel and Takane fail to disclose sample inputs of a transfer function being distributed so that more sample inputs are associated with a first region of the transfer function than a second region of the transfer function. Accordingly, Leffel and Takane fail to make up for the deficiencies of Reitan.

In view of the foregoing, Applicants respectfully submit that claim 1, as well as its dependent claims, should be allowable for at least the above reasons. Claim 11, as well as its dependent claims, should be allowable for at least similar reasons.

With respect to claim 24, Reitan, either alone or in combination with Leffel, fails to show, teach, or suggest at least using a first section of the received image data to identify a region of the input range of the transfer function to which the received image data belongs, and selecting a second section of the received image data based on the identified region.

For example, as shown in an exemplary embodiment in FIG. 6 and described in Paragraphs [0030]-[0034] of the present application, received image data is divided into three sections, such as Q (quadrant), C (coarseness), and R (residue) fields. A first

section of the received image data, such as the Q field, is used to identify a region of the input range of the transfer function to which the received image data belongs. Thus, based on one section of the image data, a particular region of the entire transfer function can be identified (e.g., a first quadrant, a second quadrant, a third quadrant, or a fourth quadrant as shown in FIG. 4). A second section of the image data can then be selected based on this identified region – as recited in claim 24.

Reitan appears to be absent of any teaching or suggestion of such a limitation as recited in claim 24. For example, in rejecting claim 24, the Examiner merely states that "the steps of claim 24 can read into the function step of claim 1." Applicants respectfully disagree. Claim 1 does not recite "identifying a region of the input range of the transfer function using a first section of the received image data". Further, Applicants respectfully submit that Reitan still fails to disclose this limitation. Here again, the portions of Reitan (i.e., Column 21, Lines 55-66 and Column 22, Lines 5-10) relied upon by the Examiner to reject claim 24 simply disclose only using lookup tables to covert incoming data to outgoing data, and are absent of any teaching or suggestion of identifying a particular region of an input range of a transfer function using a first section of the received image data.

The Examiner merely relies on Leffel to disclose an address module. Leffel fails to disclose using a first section of the received image data to identify a region of the input range of the transfer function to which the received image data belongs, and selecting a second section of the received image data based on the identified region. Accordingly, Leffel fails to make up for the deficiencies of Reitan.

In view of the foregoing, Applicants respectfully submit that claim 24, as well as its dependent claims, should be allowable for at least the above reasons. Claim 32, as well as its dependent claims, should be allowable for at least similar reasons.

CONCLUSION

It is believed that all of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Applicants therefore respectfully request that the Examiner reconsider and withdraw all presently outstanding rejections. It is believed that a full and complete response has been made to the outstanding Office Action and the present application is in condition for allowance. Thus, prompt and favorable consideration of this amendment is respectfully requested. If the Examiner believes that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at (248) 641-1600.

Respectfully submitted,

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